DOCUMENT RESUME

ED 361 875 EA 025 255

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TITLE	School Ethos and Pupil Outcome: Research Findings and Some Theoretical Considerations.
INSTITUTION	Stockholm Inst. of Education (Sweden).
REPORT NO	ISSN-0349-0971
PUB DATE	Apr 85
NOTE	36p.
PUB TYPE	Reports - Research/Technical (143) -- Information Analyses (070) -- Collected Works - Serials (022)
JOURNAL CIT	Research Bulletins from the Institute of Education, University of Stockholm; v11 n1 Apr 1985
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Academic Achievement; *Educational Environment; *Educational Objectives; Effective Schools Research; Elementary School Students; Elementary Secondary Education; Foreign Countries; *School Effectiveness; Secondary School Students; *Socioeconomic Influences
IDENTIFIERS	*Sweden

ABSTRACT

Research during the 1960s and early 1970s suggested that the different outcomes of schooling for different students were due to factors outside the school. There was no consensus among the researchers over which factors outside the school had the greatest effect on student achievement. Swedish educational research has made many important contributions within the frame-factor theory. The research has stressed economic, cultural, and organizational factors as well as genetic and social conditions as having important influences on achievement. Much American and English research within the past 15 years has focused on the influence of school climate on student achievement. Questions concerning school climate and social relations between teachers and students have also been studied by Swedish researchers, but from narrow and different perspectives. Research about effective schools brings up theoretical questions such as why differences in school climate lead to different student outcomes. Any effort to develop methods to describe the pedagogical and social climates in Swedish schools as well as the connections between climate and student outcomes cannot rely totally on former research. (Contains 56 references.) (JPT)

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ED 361 875

RESEARCH BULLETINS

from the Institute of Education,

University of Stockholm

SCHOOL ETHOS AND PUPIL OUTCOME

Research findings and some theoretical considerations

April 1985

Vol. XI:1

Lennart Grosin

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Background

During the 1960s and the early 70s several research projects were conducted whose conclusions implied that the different outcomes of schooling for different pupils were due to non-pedagogical factors. There was however no consensus in the results concerning which factor had the greatest effect. Genetic inheritance (Jensen 1969), social background and intelligence (Jencks 1972, Coleman 1966, Plowden 1967) have all been mentioned. The results, however, indicated that pedagogical factors played a less important, if not to say negligible role. Differences between schools were referred to their different recruitment bases.

The results paved the way for pessimism e.g. about the possibilities of a school to compensate children from non study-directed social environments or to give them equal chances in education (Bernstein 1970). Bernstein's theories about language codes which characterize the home environments in different social groups (Bernstein 1971) added also to the pessimism about the possibilities, expecially for children from the working classes and Social group III, to gain anything from their schooling. Teaching and the language used in school was characterized by the language code of the middle classes.

The questions of which factors are most important in the direction of the contents and methods in schools and which determine the results of schooling have also been discussed by the French educational sociologists, Bourdieu and Passeron. They maintain that the school's function is first and foremost to reproduce the power structure in Society and that language is one of the most important instruments for achieving this. (Lundgren 1979).

In Swedish pedagogical research many important contributions have been made within the frame factor theory (Dahlöf 1971, Lundgren 1972 and 1977). Lundgren (1979) has presented reports which derive from curriculum theory in which he describes economic, cultural and organisational driving factors in the educational process. Ekerwald (1983) has analysed first and foremost the importance of genetic theories and the socially conditioned intelligence promotion factors respectively

for the results of schooling. She states that social background and intelligence of the parents play important roles in children success or failure at school.

However she points out that even the school and the pedagogical principles and methods of learning initiated there are important. Ekerwald maintains in other words that background factors do not explain the whole difference in school results. Therefore there is no reason to give way to a deterministic view of or pessism about a school's possibilities to influence results through pedagogical measures.

During the past 15 years researchers mainly in England and USA have studied to what degree the school's pedagogical pedagogical climate influences pupils' results. The research has given rise to many interesting results which shall be briefly catalogued in the next section. They have both theoretical and practical implications and suggest that schooling has in spite of everything its differential effects.

Research on pedagogical climate and effective schools.

A research project which has drawn a great deal of attention was led by the child psychiatrist Michael Rutter (Rutter et.al. 1979). This originated in a broad survey of ten year olds in London and on the Isle of Wight concerning different intelligence and behaviour variables. The researchers were able, as a sub effect, to state that the frequency of behavioural disorders and reading problems varied for children from different schools in London's inner city area. A closer study showed that the differences could not totally be attributed to their social backgrounds but that a lot pointed towards other factors having an effect on the differences, possibly the schools themselves. The Rutter group maintained that educational research as well as describing the importance of different background factors for the results of schooling has also been interested in curriculum questions and pedagogical practice, but that very little is known about

> "... The broader patterns of life in schools and about the kinds of environments for learning which they present to their pupils. That was the prime focus of the study." (op.cit. page 22).

The research project was conducted at Secondary Schools. The effects of the schools' social and pedagogical climate were studied with regard to examination results, pupils' attendance and behaviour in school as well as criminality. Adjustment to work was looked at in a separate study. (Gray et al 1980). The results show that the considerable differences which were found between pupils in different schools could not entirely be attricuted to social selection or to intelligence factors. The differences which showed a high degree of stability between different schoolscould be systematically attributed to their character of social institutions:

> "Factors as varied as the degree of academic emphasis, teacher actions in lessons, the availability of incentives and reward, good conditions for pupils, and the extent to which children were able to take responsibility were all significantly associated with outcome differences between schools. All of these factors were open to modification by the staff, rather than fixed by external constraints." (Rutter op.cit. 1979 page 178).

The results showed also that the connection between the cumulative assessment of the school's character and the outcome of the different pupil variables was much stronger than the connection between these and the single process variables:

> "This suggests that the cumulative effect of these various social factors was considerably greater than the effect of the individual factors of their own. The implication is that the individual actions of measures may combine to create a particular ethos or set of values, attitudes and behaviours that will become characteristic of the school as a hole." (op.cit. page 179).

Finally the researchers maintain that their findings suggest that the connection between the school process and outcome in all probability is a causal one:

> "In other words, to an appreciable extent children's behaviour and attitudes are shaped and influenced by their experiences at school and, in particular, by the qualities of the school as a social institution." (op.cit. page 179).

The Brookover report

Parallel to, but independent of the Rutter project, a study was made in USA. It was conducted on 4th. and 5th. grade pupils in 91 randomly selected schools in Michigan, and was composed of a statistical study plus a case study of four schools. (Brookover et.al. 1979).

The basic assumption was that the behaviour of pupils in school, especially their achievements, is in part an effect of the social and cultural attributes which are characteristic of the school as a social environment.

Four manifestations of the schools' cultural and social characteristics were studied:

- The pupil group's socioeconomic and racial composition.
- Other human and social resources in the schools such as their size, pupil attendance rates, teacher/pupil ratio, plus the teachers' experience, academical qualifications and wages.
- The social structure of the schools. Two measurements described the pupils' roles and status. One had to do with to what degree they were places in different teaching groups according to their achievements (differentiation). The other aimed at describing to what extent pupils could move freely in the classroom during lessons, i.e. the grade of flexibility in classroom teaching (open classroom). Furthemore a study was made of to what extent the parents were known by the teachers and the principal and how involved they were in the social structure of the school. A study was also made of what proportion of lesson time was used for teaching and of the teachers' satisfaction with their work.
- The fourth variable was called social climate. This meant characterizing the school's cultural and value aspects, the social psychological aspects. It contained the pupils' beliefs about their prospects for succeeding at school and about other peoples's expectations and assessments of them plus their beliefs about which norms characterized the school. Furthemore a study was made of the teachers' own beliefs and beliefs about other people's expectations, values, assessments efforts and norms. Finally a study was made of the principal's beliefs about other peoples's efforts and what measures they themselves took with regard to pupil expectations, norms and attempts at deeper studies.

The result variables which were studied were the pupils' achievements in mathematics and reading, their view about their own achievement level, (self concept) and their self reliance in their studies.

Results

The study showed that the social climate, i.e. the pupil's, teacher's and principal's expectations, norms and demands with respects to studies and achievements, explained an important part of the difference in the level of knowledge between the schools.

The social climate was created by teachers and school leadership. It was however influenced by the pupils' social composition.

Particularly a large proportion of black children influenced the social climate negatively but even schools which recruited poor white children were characterized by lower expections and assessment of pupils' prospects. The pupils in these schools had also a lower level of knowledge. There were exceptions, however! Some schools in poor white areas or with a large proportion of pupils from minority groups had a very positive social climate and even much better pupil achievements than was usual in such areas. Brookover states that:

> "Although having a minority or low socio-economic student body may predispose teachers and principals to tolerate low levels of achievement, a favorable academic climate and high achievement can be developed for such students." (Brookover et al op.cit. page 144).

The pupil groups' socioeconomic composition had also a direct conection with the results. An interesting question is what relative influence both these factors had. Brookover stated that the social climate and the socioeconomi and racial composition explained equal parts of the difference in the results between the schools.

The fact that certain schools with poor white children and schools with black children had good study results, shows, according to Brookover, that the socioeconomic and racial composition was not a direct causal factor but in the main worked indirectly by influencing the social climate.

> "We, therefore, conclude that the school social climate and the instructional behaviors associated with it are more direct causal links in the production of achievement behavior in reading and mathematics." (op.cit. page 142).

Parent involvement did not have any observable effect on the knowledge level, except in schools with a majority of black children. Open classrooms had a negative effect on the pupils' achievements. This was also the case with schools which applied streaming of the pupils. This was so first and foremost in white high status schools. The explanation is in all probability that streaming leads to lower expectations and an increased feeling of inferiority for many pupils. Other human och social resources such as school size and teacher/pupil ratio played a very small part except in schools with a majority of black pupils. In them the teachers' salaries, teaching experience and academical qualifications were of importance for pupils' achievements.

The social climate also explained the difference in schools with regard to the psychological characteristics, self concept and self reliance. The climate in the schools was expecially important for the self reliance of black and poor white children. Brookover interpreted that to mean that children from higher social groups are more influenced by the family as a social system and that the schools thus had a relatively lower degree of influence on these children.

Brookover et.al. (op.cit. page 147 - 148) summarizes the characteristics of the schools in which the pupils' study results are good in the following way. The pupils feel that they have control over and ability to cope with school work. They feel that they can influence their achievements and that their teachers care about their school work. The teachers and the principal say they are sure that the pupils can cope with their tasks and they expect them to do so. They are deeply involved in teaching the pupils what they should know. The pupils are aware of the teachers' and principal's expectations and they see that the schools' norms are strong with regard to the importance of learning. These norms are manifested by the fact that teaching takes up most of the day. Differentiation and streaming are seldom to be found. The teachers reward the pupils for their achievements but not indiscriminately or independent of whether they have done good or bad work.

The schools in which the pupils have poor study results are described in the following way: The pupils have a feeling of insufficiency in relation to their studies. They have low expectations for thir own achievements and a feeling that the teachers do not care if they do well or badly. They believe that other pupils would tease them if they made a lot of effort in their schoolwork. The feeling of insufficiency is associated with the fact that the teachers have a low opinion of their capability and that they, in common with the principal, have low expectations of them. The achievement norms are placed low and less time is reserved for direct teaching. Many pupils are written off as uneducable. Differentiation and streaming are usual and the pupils get praise even for poor achievements.

Brookover's results are in other words very similar to the Rutter report and in addition they provide important knowledge about the differences between high and low status schools as well as about certain psychological factors.

The main results of another two extensive studies about the characteristics of effectiv schools have been summarized by d'Amico (1982) in the following points:

Brookover and Lezotte (1979)

- x Improving schools accept and emphasize the importance of basic skills mastery as prime goals and objectives
- x Staff of improving schools believe *all* students can master the basic skills objectives and they believe the principal shares this belief
- x Staff of improving schools expect their students will go on with their education
- x Staff of improving schools do not make excuses; they assume responsibility for teaching basic skills and are committed to do so
- x Staff of improving schools spend more time on achieving basic skills objectives
- x Principals at improving schools are assertive instructional leaders and disciplinarians, and they assume responsibility for the evaluation of the achievement of basic skills objectives
- x Staff at improving schools accept the concept of accountability and are involved in developing (or using) accountability models
- x Teachers at improving schools are not very satisfied or complacent about the status quo
- x There is more parent-initiated contact and involvement at improving schools (even though the overall amount of parent involvement is less).

Edmonds (1981)

- x Clarity that pupil acquisition of the basic school skills takes precedence over all other school activities
- x There is a climate of expectation in which no children are permitted to fall below minimum but efficacious levels of achievement
- x Adminstrative leadership is strong and without it the disparate elements of good schooling can be neither brought together nor kept together
- x A means is present by which pupil progress can be frequently monitored
- x There is an atmosphere that is orderly without being rigid, quiet without being oppressive, and generally conducive to the instructional business at hand.

Research in Sweden

Questions concerning school climate and ethos have also been delt with within Swedish pedagogical research but from more narrow and different perspectives than the one here refered to. Ethos as an expression for social relations between teachers and pupils have been studied by Ekholm (1971 and 1984).

Similar concepts have also been penetrated within educational sociology (Arfwedsson 1983)[1)]. Arfwedsson aplies the concept school-code: "a cluster of determining and directing principles for interpretations and actions" within a school. The basic analysis concerns above all the way the code, characteristic for a certain school, is shaped by the societal, socio-economic and cultural characteristics of the near environment (the school's catchment area).

The empirical base in this research is however still rather small and the methodological problems are obvious. The Study which above all others is important in this connection (Arfwedson 1979) was made of only three schools in neighbourhood environments. The schools differed as well with regard to the teachers' backgrounds as with their previous pedagogical directions. The report of results is in part imcomplete. This is the case e.g. in the interview study which is very important for the conclusions.

An example of how the question of pedagogical climate is treated or rather neglected within educational sociology is a Study by Arman & Jönsson (1983). They state a general strong connection between social group membership and school results. Furthermore they found that children from Social group III who attend schools which mainly recruit children from "higher" social groups, have better study results than children from Social group III who attend schools in "their own" areas:

> "Working class children in high status schools can in certain cases have a greater similarity with the living conditions which children from higher social groups live under, than with working class children in a low status area. The opposite case can also be taken to be true: pupils from higher social groups who live in low status areas have more in common with working class pupils than with pupils from higher social groups in high status classes." (Op.cit page 54).

That is to say, these results are interpreted only from a sociological viewpoint. Arman & Jönsson maintain in another context that the high

status schools first and foremost concentrate on learning and grades, whereas schools in low status schools concentrate most of their work on the immediate social realities. With this background in mind an alternative interpretation of the results can also be made, namely that the different pedagogical climates characteristic of the schools in different areas "lifts up" the Social group III children in high status classes and "presses down" Social group I children in low status classes. Arnman & Jönsson do not discuss this possibility at all. Such an emphasis on pedagogical factors is in fact unusual in educational sociological research. One exception is the previously mentioned work of Ekerwald (1983), in which the importance of the pedagogical factors for the outcome is emphasized alongside the sociological.

Theoretical perspectives[2)]

Causality question

Research about effective schools and pedagogical climate actualizes a number of theoretical questions. One has to do with the reasons for why differences in pedagogicla climates lead to different outcomes. Questions of this kind have not been touched on to any great extent in the research which has been presented here. They have to do with children's and young people's socialisation and development in general. An interesting theoretical construction here is cultural historical development psychology (Vygotskij 1978). Another adjacent question has to do with children's and young people's knowledge and concept formation. What is e.g. the relationship between children's spontaneous concept formation through experience and the scientific concept formation which is the result of teaching? Both these fundamental questions lead back to the question of the relationship between learning and development. Vygotskij's theories can very well throw light on the results which have been achived in school research in these respects. Outer influence in the form of cultural transference has in cultural historical theory a definitive importance for the development of complex thinking, indeed for psychological development as a whole. One of the main results of the research about effective schools is that different outer conditions, such as the pedagogical and social climte in the school, lead to differences both with regard to the development of knowledge and to social and psychological adjust-

ment. (Grosin 1985b).

Vygotskij developed his theory in opposition to beliefs that inheritance factors are of determining importance for the development of complex thinking. The cultural historical theory is in other words in opposition to such deterministic currents within genetics. The inherited characteristics are reduced to inner prerequisites which are realized by outer conditions.

An analysis of the relationsship between spontaneous and scientific concepts implies that teaching is a necessary condition for concept formation. Culture transference is in other words a decisive condition for the development of logical thinking. Active training and teaching are necessary. Children's thinking and logical ability do not develop spontaneously through inner driving forces. The development of scientific concepts has according to the Vygotskij theory also importance for language development and children's abilities to understand and express abstract contexts. This could explain the better achievements of pupils who attend schools which place teaching and knowledge in the centre. (Grosin 1985b).

The theory of the proximal development zone means that pupils through teaching and other adult influence can advance beyond the intelligence level they are "actually" on. The attitude which is characteristic of the successful schools, i.e. to place knowledge and studies in the centre, helps in all probability the pupils to make full use of their proximal zone and improve their ability for abstract thinking which in its turn can be expected to further improve their achievements.

According to the cultural historical theory it is necessary for the pedagogues to go before the child in its development and through different pedagogical measures create passibilities for the child again and again to force the boundaries of its own development. In other words, learning and teaching precede development and pedagogy becomes the main part of the developmental process.

If one studies the results which have been achieved in the research about the pedagogical and social climates in schools the cultural historical theory appears to provide a possibility to shed lights upon the results. (Grosin 1985b).

The aims of the school

Research in the area also actualizes the question about what aims and priorities among these the school decides to work for. This is apparent amongst other things in many of the contributions to the discussion which followed the publication of the Rutter report.

The cultural historical theory in developmental psychology states that schooling in the common inheritance of knowledge and culture is one condition for the development of mind, language and thought. If this is correct, such a pedagogical and philosophical perspective gains its legitimacy, not only from values, but also developmental psychologically. (Grosin 1985b).

Teaching methods

In his research survey Rutter (1983) maintains that such an emphasis on knowledge and teaching which characterized good schools is not the same as any special pedagogical teaching method. He states that the methods must be adjusted to the character of the subject matter, the age of the pupils and the concrete goal-setting of the teaching. What his and others' research has shown is that a certain pedagogical climate creates good basic conditions for the teachers' teaching plus the pupil's learning and social adjustment in school. But what and how much the pupils take in is also dependent on the curriculum and the teachers' abilities. The question should also be studied on the basis of what has been said above about the importance of teaching being grounded in the knowledge and cultural inheritance and is thus connected with the subject structure which is the basis of science and research. (Grosin 1985b).

Of interest in this connection is also research about the causes of pupils' interest in school subjects. For instance, it has been shown that an important factor for interest in mathematics and pshysics is logical attractiveness, i.e. to what extent pupils understand and are able to apply theories in the subject (Sjöberg 1985. Cf also Sjöberg 1983 a, 1983 b and 1983 c).

Interesting too is the so-called subject didactic research within which one develops knowledge both about questions of learning theory and how teaching in individual subjects should be conducted in order

to enable the pupils to reach an understanding of important concepts and principles. (Marton & Säljö 1976 a, 1976 b).

Effective schools and equality

One of the questions asked in the extensive research projects of the 1960s and 1970s (Coleman, Jencks, Jensen op.cit) was if the school could level out the differences between children. Their conclusion that the school does not play any part in the differences between pupils' results has been contradicted by later research. But were they wrong even in the question of equality?

Rutter (1983) discusses the question of the school's possible equalizing effects with regard to the level of knowledge, the labour market and the distribution of income and welfare. He maintains that defects in equality are caused by a number of wide-spreading political, economic and social conditions on which the school cannot have any effect. Not even if one limits the question to knowledge and skills does he feel that the school has any equalizing effect. Rutter agrees in other words with Bernstein's (1970) view that "School cannot compensate for Society".

The most important reason that Rutter gives is that there is no concrete connection between the socioeconomic structure in an area and the quality of the schools. The space for improving the pedagogical and social climate in the schools should in other words not be greater in some areas than in others. On the other hand, his and other's research indicates the possibility of a general level-raising which will not however have any consequences for the socially and genetically conditioned differences between children. However, even a general level raising can have equalizing effects, e.g. by breaking a socially conditioned inclination which certain children have to commit crimes. The same can be said about the increased possibilities of choice which a favourable school experience leads to. One example provided is the connection between condtions at school and possibilities in the labour market the year after school (Gray et.al. 1980).

Furthermore, Rutter's conclusion that there is no significant connection between the pupil group's socioeconomic structure and the quality

of the school can be questioned. Obviously it is valid for the schools in his study. But thet were all situated in a socially underpriveliged area.

The study of Brookover et al (1979), which I have referred to previously, was based on a random sample and thus it includes schools from all kinds of socioeconomic environments. In this study a clear connection was found between the pupil group's socioeconomic background and the social climate in the schools. That is to say, the teachers' and principal's expectations of the pupils were often lower in schools with poor white or black children and they tolerated considerably lower grades of achievement in such schools in comparison with high status schools. This kind of connection has also been drawn attention to by Edmonds. (1979)

At the same time Brookover stated that there were notable excetions to this connection. School leadership and teachers can in other words create a positive social climate even in schools in "low status areas." One of the conclusions in the Rutter report was also that even if the teachers' behaviour in the classroom is in part a result of the childrens' interests, behaviour and abilities, the teachers have considerable freedom to decide themselves how they should respond to the children in their teaching.

Pedagogical research in Sweden has, as I have previously mentioned, shed light on the relationship between the social backgrounds of the pupils, the pedagogical climate of the school and pupil outcome to a greatly limited extent. The studies by Arfwedsson et al (1979) and Arnman & Jönsson (1983) have however drawn attention to the connection between the social background of the pupils and the pedagogical direction in Swedish schools, which implies that there may be an agreement with Brookover's results.

If these results are correct the space for improvement of the pedagogical and social climates should be greatest in schools which recruit children from socially and economically less fortunate families. In a similar way the schools in high status areas are even now characterized to a greater degree by pedagogical and social climates which are favourable to pupils' results and social adjustment. Improvements of the climate in schools should in other words mean that the gap between different social groups within a pupil generation would be narrowed.

The number of opportunities both for continued education and in the labour market would be evened out between the social groups.

There are other reasons why improvements of the pedagogical and social climate in all probability would be of the greatest importance for children in low status areas. Children from socioeconomically more favoured families can probablyget more out of their schooling, amongst other things because their parents have high expectations of and demands for the childrens' achievements. The children are not therefore as dependent on the school having a positive pedagogical and social climate as children from socioeconomically less favoured homes are.

The main proportion of the families in Social group III, immigrant and working class groups can provide their children with secure and harmonious homes. But with regard to such positive impulses as studies and knowledge can give, children from these families are often more dependent on their schools.

Brookover also found that the school's importance for the pupils' self-concept and self reliance was greatest for the black and poor white children. Children from socially more favourable areas were able to fall back on the value systems in their families to a greater extent.

Lightfoot (1983) found in her purely qualitatively study of six high schools which were all known as exceptionally good schools, that in all of them great attention was placed on the weak pupils. Partly extensive pedagogical, social and psychological resources were delegated to these pupils, partly they were treated, as other pupils, with respect from the adults' side and in a way which encouraged their strong points. (cf. discussion on resilience below, page 20 ff).

In a newly completed study in Sweden (SOU 1983:63) about pupils with many problems in school there was a connection found between different schools' "culture/working organization" and the number of pupils with so-called "adjusted study programmes". [3)]

Expectations and demands

The adults expectations and demands on the pupils seem to be a determining factor for the pedagogical and social climate in schools.

Many schools are unsuccessful both in the supplying of knowledge and social training. Two conceptions have according to Brookover et al (1979) been to a great extent responsible for this. The first is that the entire difference between pupils' knowledge in different schools can be explained by the pupil group's socioeconomic and racial composition. The second is that the pupils' learning capacities are very different and that many indeed lack the capacity or maturity needed to learn what is taught in the calssroom. Brookover rejects the idea of the normal curve. It is used to justify the differences between pupils and that some of them are failures. A more reasonable assumption is tat all can and want to learn. If a competence promoting model of teaching and rewards were to be developed, the results would instead, according to Brookover (a.a.) show a J-formed curve. [4)]

A similar argument is presented by Ronald Edmonds (1979):

> "The great problem in schooling is that we know how to teach in ways that can keep some children from learning almost anything and we often choose to proceed thus when dealing with the children of the poor."(Op.cit. page 32).

In the same way as Brookover Edmond's conclusion of his own and other's research is that:

> "... all children are eminently educable, and the behavior of the school is critical in determining the quality of that education." (Op.cit. page 30).

The theory of the social inheritance

Research which has focused on the school as a social organisation has been able to show that this in all probability plays a significant role in the origin of differences in results and adjustment which are characteristic of children in a pupil generation. The pupils' genetic and social backgrounds are in other words not as decisive as has been believed. [5)]

The results have however further implications for the relationship between the pupils' backgrounds and the possibilities of utilizing what school has to offer. The school culture which characterized the successful school was advantageous to all children independent of social background. At the same time the Swedish and first and foremost the American results indicate that there is a connection between pupil groups' socioeconomic (and ethnic)

structures and the pedagogical and social climate in a school.

This perspective on teaching and development leads us to reflect over a belief generally accepted in Swedish pedagogy and psychology, namely that social inheritance is an important explanation of a child's behaviour and adjustment, e.g. in school.[6)]

Social background is a circumstance which, transferred into a measurable variable of some kind, often shows an association with "result variables" such as e.g. school grades, professional status and adjustment patterns. The question that must be asked is however, what is it which leads children with different "social inheritances" to succeed or fail in school.

The problem is that "background factors" do not live their own lives. They can only be activated through our beliefs and actions and through outer conditions. It is mainly through adults having different expectations of children plus that they influence them and treat them in a certain kind of way, apply a certain pedagogy, that the social background becomes an active factor.

Some critics of the Rutter group's conclusions have maintained that the better pedagogical climate and pupil outcome in certain schools just as much can be explained by the fact that they have a greater proportion of children with good prerequisites. Apart from the fact that the Rutter group was able to refute the criticism through scientific and methodological analysis, one can with good reason claim that this is an imcomplete, if not to say mechanical criticism. The reason is that "social inheritance" on its own, is not an explanation or never, in any context can be an explanation of anything. It is necessary to define what it is that makes children's background fluctuate concurrently with e.g. the pedagogical climate in a school or with different measurements of achievements and adjustment. A connection is not the same as a cause, even if it appears to be very easy to make this mistake when discussing background factors and "the social inheritance".

This can all be illustrated by the very complicated relationship which seems to exist between pupils' social background, the pedagogical and social climate in a school and pupil outcome. In fact all these three factors interreact during the children's time at school and it is not possible to discern any single conclusive causal factor. The fact that a school's social and pedagogical climate is partly a function of the

pupil group's socioeconomic structure does not make the question of the school's social characteristics and climate less important. Firstly, it effects the pupils' results. Secondly, there is no necessary connection between social background and a school's demands and expectations. Research about effective schools has shown that teachers' attitudes are not predetermined by the composition of the pupil group. Exceptions from "the rule" are naturally of much greater theoretical interest than the cases which seem to confirm the expected ("causal-") connection. They show namely that the factors which determine the social and pedagogical climate a school has are the principal's and teachers' actions and values, i.e. their pedagogical goals and methods. When they formulate these they can to different degrees allow their demands and values to be influenced by the social background of the pupils, it is true. But they do not need to allow themselves to be influenced in this way.

The aim of this analysis is to emphasize the importance of pedagogy and training, not to deny the importance of either genetic or social background factors for a child's possibilities of succeeding in school.

The discussion and research results which Ekerwald (1983) has presented indicate that differences between people's achievements and adjustment are partly controlled by genetic differences but this does not mean they are predetermined. Everything points also to the fact that these genetic differences are randomly distributed in different social groups. (Lewontin 1976). This means that the differences in ability to succeed in school and in recruitment to higher education between pupils of different social groups, cannot be explained by genetic background.
To a certain extent the uneven recruitment to further education is in all probability due to differences in interests amongst pupils for higher studies, in relationship to other educational and professional careers. To maintain, as in some cases, that mere membership of the working class or of Social group III is an educational handicap is meaningless and wrong. When a young person chooses to become an industrial worker or a craftsman after positive deliberation and thus passes on a class and family tradition, then all is well. But if the decision i a forced one because the pupil's ability to study has not been realized, then the choice can be seen to be a problem. Only if the school has created good development possibilities and the pupil's results

are a manifestation of what he or she can achieve in good conditions, can the choice of education and profession be made after positive deliberation.

Under such circumstances not only do prerequisites for equalizing recrutiment to higher education between social groups exist, but those who might prefer other professions would have better knowledge and general education. This would be advantageous for single individuals and also for the whole working class and Social group III as well as for the development of production and organization within the sectors of the labour market which do not recruit an academically trained labour force. A knowledgable and educated people, in other words.

And so I come to the other basic ground for the inner qualities, the social background, mainly the home environment. Research shows that differences between children's prospects for succeeding at school are to a certain extent in all probability determined by such characteriestics in their home environments which to a certain degree vary between social groups. I have already maintained that a first demand is that one tries to define what it is in the wider framework, social background that has an effect on the childrens' ability to succeed at school. Walberg (1984), who has compiled a large number of studies about the effect of different factors on pupils' school results, shows that families' pure socioeceonomic status has a very mild effect on pupil outcome. What is important is that parents talk to children about what happens to them in school and outside it; that they encourage them to read books; supervize and analyze TV watching and leisure time activities critically and also are involved in and show an interest in their children's development in school and as people.

Walberg (a.a.) calls these factors the curriculum of the home. Studies show that it is to a great degree open to influence by cooperation between school and parents and that positive changes lead to better achievements and adjustment in the school for the pupils. A farseeing pedagogical effort from the school can in other words equalize the opportunities for the pupils, even with regard to home circumstances, which are important for their achievements and adjustment in school.

A child's development is a product on the one hand ot its inner qualities and on the other of the outer conditions which create conditions for further development.

At every stage of development the child's basic prerequisites and the experiences it has had during its life, have formed a series of inner qualities which characterize just that child.

Research about effective schools has shown that the school actually can create different conditions for childrens' development according to the social and pedagogical climate which characterizes it.

In research and discussions about social and psychological maladjustment one often starts with attempts to find the social factors which are the cause of or which condition different problems. Rutter (1984) approaches the problem in another way in a fruitful manner when he emphasizes resilience and such factors which can explain why many people, who have had serious problems during childhood and adolescence, do not become socially maladjusted adults. What factors can explain why "expected" difficulties and adjustment problems do not occur? From our focus on the school -what can it do to encourage good achievements and good adjustment even for children with problems and low opportunities? Research has thus far provided promising results when it comes to surveying and describing the pedagogical and social climate which the school ought to create in order to fill its function in these respects. [7)]

Seen from this perspective, the theory of social inheritance can be taken to be a behavioural scientific mystification, which contributes to the views that social background on its own can be the cause of anything at all of importance. Such wrong thinking is practically hidden in the concept "the social inheritance" itself. One can therefore question whether it is not a bad choice.

The question of grades

A conclusion of the school research presented here is that a change of the pedagogical and social climate in the schools makes the raising of the general level of knowledge possible. Thus the question of grading and the consequences of the relative grading system is actualized. [8)] This has to do with partly the conditions for raising the knowledge level as well as being able to gain a pedagogical advantage from it. Partly it has to do with the consequences for the less able pupils and for those who attend schools which mainly recruit children from Social

group III and the working class plus immigrant groups in which a change of the pedagogical and social climate can be expected to give the greatest effects. The relative grading system is based on the assumption of a normal distribution which Brookover sharply criticized. (cf. above, p. 16).

The other view which Brookover and Edmonds criticize, namely that children are more or less uneducable, is in a similar way encouraged by the relative grading system.

If the adults' expectations are as important as the research about effective schools shows, the results for many pupils in Swedish schools should be improved to a considerable extent by replacing the relative grading system with e.g. a knowledge related one.

A discussion of the consequences of the present grading system for pupils who fail in school with similar starting points is presented by Andersson (1984).

Methodological problems

The research area is dominated by quantitative studies.

In a critical survey of research Purkey & Smith (1982) state that first and foremost three kinds of methods have been used:
Outlier studies in which especially effective schools have been compared with unusually ineffective ones. In most cases they have been made of primary schools and are based on relatively small and limited samples. Furthermore Purkey & Smith point to the difficulties of finding methods to separate the effects of social background from the effects of school characteristics. Thirdly, the authors mean that it is remarkable that none of these studies have made comparisons between especially effective and completely normal schools.

The results imply that different factors have been active in different schools and that great care must be taken when making generalizations from the results. Certain factors are however recurrent in several of the studies which are characteristic of the more effective schools, such as firmer discipline and control plus that the teachers had greater expectations of the children's achievements. In several of the studies it became plain that the schools were more effective in which the prin-

cipal or some other important teacher played the part of a pedagogical leader. Another kind of studies are case studies, amongst which the Rutter study and Brookover & Lezotte are to be found. They point first and foremost to five factors which are important for the creation of effective schools:

> "These are (1) strong leadership by the principal or another staff member, (2) high expectations by staff for student achievement, (3) a clear set of goals and emphasis for the school, (4) a schoolwide training program, and (5) a system for the monitoring of student progress."
> (Purkey & Smith op.sit. page 65).

The case studies are of varying qualities but no collected criticism of these studies is presented. However, Purkey & Smith point to a weakness in the Rutter study, which has even been drawn attentions to by Heath & Clifford (1980), namely that the more effective schools had a higher proportion of pupils from middle income families than the less effective. This can in other words be the factor which explains the connection with outcome and not the pedagogical style (school process variables) which the Rutter group maintains. In a follow-up study which the Rutter group made as a result mainly of Heath & Clifford's criticism (Maugham 1980) it was shown that the connection between such background factors and the school process was small compared with the connection between this and the outcome. Criticism on this point has thus with good reason been able to be rejected by the Rutter group.

On the whole there has been a very lively discussion of the Rutter study in first and foremost the English professional press (Tizard et.al. 1980, Acton 1980, Rutter 1980, Heath & Clifford 1980). The discussion shows that there are problems but also that some simplified comments are made at the cost of a more serious test of the theses which the Rutter group and other researchers in the area have presented.

The third kind of method which Purkey & Smith (op.sit.) report on in their survey is evaluations of experimental activities. They state that they are of varying quality but methodologically stronger than other kinds of studies.

The results are, however, manifestly consistent. The conclusions of their scrutiny are therefore that even if there are different methodological problems and deficiencies in the studies, there have not to

date been any studies made which are based on a systematic sampling of different schools and that the results cannot be generalized very far, so there seems to be:

> "... a substantive case emerging from the literature. There is a good deal of common sense to the notion that a school is more likely to have relatively high reading and math scores if the staff agree to emphasize those subjects, are serious and purposeful about the task of teaching, expects the students to learn and create a safe and comfortable environment in which students accurately perceive the school's expectations for academic success and come to share them." (Purkey & Smith op.cit. page 67).

Another important conclusion of Purkey & Smith's survey has to do with some basic assumptions about pedagogical climate:

> "A different approach to school improvement than the recipe model rests on a conception of schools that links content with process to arrive at a notion of school culture. - - - It is a school's culture resulting in a distinct climate, composed of attitudes, behaviours, organizational structure, and so on, that is influential in determining the school's effectiveness." (op.cit. page 67-68).

Yet another research survey in the area has been made by Rutter (1983) in which even different method and design questions are discussed. A problem which is taken up has to do with methods of keeping the pupils' social backgrounds and previous knowledge under control. They rest on a number of accumptions which are not always fulfilled. Several designs have been used. One is to compare schools with similar intake, e.g. by matching the schools in pairs. An extension of this method is to compare schools which differ from each other regarding the pupils' results but which are matched according to their intake variables. This method is in the main in agreement with studies which are characterized as outlier studies by Purkey & Smith (op.cit.)

Rutter (1983) maintains as well that certain studies base their connection measurements on school averages for intake variables.

Another critical research survey has been made by Rowan (1983). This is however based on a more limited selection than Purkey & Smith's.

This is mainly because Rowan's criticism is almost entirely limited to studies which have simply looked at certain school factors' effects on pupils' achievements in reading and mathematics. Rowan's survey does not e.g. include the Rutter report, Brookover et.al. (1979) or

Brookover & Lezotte (1979). None the less Rowan does discuss a number of methodological problems which there is every reason to make a note of. It becomes apparent, amongst other things, that different measurements of achievement often have low intercorrelations and have low stability over time. Furthermore, school factors often explain only a small part of the variance in differences which are to be found between pupils in different schools. Maughan (1980) has however shown that the differences between achievement averages for comparable group of pupils in schools with different climates can be important. Rowan (op.cit.) maintains also that school factors are important also for prediciting individual pupils' results and that the research on effective schools should be further developed. Yet another advantage which this research has, Rowan maintains (op.cit.) is that more school variables and more important ones have been brought into focus if a comparison is made with earlier research.

Other problems in the research area are, according to Rowan the samvariance which exists between the pupil groups' socioeconomic structure, the schools' effectiveness and outcome, and that metods must be evolved to control the effects of the pupils' intelligence and earlier knowledge level on the outcome. In many studies different interpretation possibilities have been found for the connection which has been present. Generalization problems from outlier studies to normal schools and from schools in urban areas to country schools are also manifest. Furthermore he is of the opinion that research ought to concentrate on how differences between schools as social organizations give rise to differences at the classroom level. In many studies the school is treated as a "black box".

Rowan (op.cit.)maintains, from the studies he analyzes, that it is as yet too early to convert the results from research about effective schools into practice. He maintains, however, that the research area is interesting and that progress has been made in surveying schools' characteristics as social organizations. To summarize, he maintains that research methods should be chosen so that it becoms possible to extimate the effects of different variables on pupils' results; that longitudinal, multivariate research methods, which make it possible to analyze complex causal structures should be preferred plus

that sampling methods and different techniques must be used to control interaction effects between variables. Most important of all is that research creates conditions for reaching an understanding why and in what way schools with different pedagogical and social climates create conditions for teaching and learning.

I have already pointed out the limitations of Rowan's criticism. One of the studies mentioned above (Rutter et.al. 1979) meets the demands he makes on several points.

Lastly, I wish to point out two further methodological problems. Firstly, to describe a school's characteristics as a social organization, i.e. the pedagogical and social climate in a school. One of the reasons why one previously in pedagogical research has not been able to find that school characteristics explain any part of the differences in outcome in a pupil generation is in all probability because there has been a lack of good measurements of the school process and the school's inner life.

In the Rutter report the school process was measured by 46 different subvariables. The data was collected during a long period of time with the help both of observations, interviews and questionnaires.

The choice of variables for the school process is naturally both of theoretical, ideological and school policy interest.

The other problem is to choose and construct outcome variables. Knowledge measurements are easily obtainable in the form av grades and public examination results. In the framework for research which has been conducted up to now even other knowledge and skill variables than those measured by traditional grades have been used as well. e.g. the effects of the pedagogical climate on the pupils' creativity have been estimated with the help of essays and independently written texts, amongst other things. (Horwitz 1979, Bennet 1976).

Other effect variables are attendance and truancy. Furthermore, the extent to which pupils from different schools continue their studies has been looked at. (Rutter et.al. 1979, Reynolds et al 1980, Jenks 1972), as well as their adjustment to working life. (Gray et al 1980).

Another important area is the pupils' social adjustment. In this case

the grade of criminality (Rutter 1979) has been used as well as the estimation of ability to cooperate and curiosity (Horwitz 1979) as well as friendship and the formation of social cliques (Hallinan 1979). As regards the Swedish situation attention ought to be taken of the well developed organization of the social care of pupils as well as referrals to social workers and child psychiatrists which psychologists within the school system are responsible for.

Another aspect has to do with social maturity and development level. The idea is that the pedagogical climate can have an effect on the general conditions for socialisation and development of children and young people. In the Rutter study the successful schools were characterized by the pupils being active and responsible as well as the fact that they were involved in the concerns of the school.

Another effect variable which is used is behaviour, often defined in a traditional way, i.e. to what extent pupils concentrate on work in the classroom or create disturbances or are lacking in concentration.

The choice of outcome variables is not simply a technical question but is directly connected with the goals for the school's activities one wishes to emphasize.

Qualitative methods

Even if the research area up to the present has been dominated by studies using quantitative methodology, qualitative methods have been tested. In the above mentioned study of Brookover (et.al. 1979) the statistical study was supplemented by case studies of four schools which were conducted with qualitative methods. This made possible, as we have mentioned above, a deepening of the study's results.

In a study by Lightfoot (1983) purely qualitative methodology was applied. Lightfoot collected data with the help of interviews, observations and documents during a period of three years. The study was conducted at six high schools which were chosen on the grounds that they all had a reputation of being expecially good schools. Furthermore Lightfoot wanted on the one hand to try to describe individual attitudes and strivings and on the other hand how the individuals to-

gether formed the school's collective, social character. The study aimed also at investigating more deeply individual measurements of effectiveness and success, such as e.g. the pupils' achievements, attendance and choice of continued studies, and to form a picture of their social character and climate. Lightfoot has in other words tried with qualitative methods to reveal that which the Rutter group believed they could state, namely that the good schools were characterized by an ethos, a pedagogical climate. In the Rutter study this appears as an interpretation of the results of a comprehensive statistical analysis. With Lightfoot's (1983) method the question can be penetrated directly in school after school and thus both specific and general factors are revealed.

Research about effective schools entails unequivocally an extension of the conditions for describing such factors as have a connection with and are of importance to pupil outcome. All the same, these studies explain, even though the pupils' social and academic backgrounds and the social composition of the pupil groups are taken into account, far from the whole variance. Heath & Clifford (1980) have e.g. in their criticism of the Rutter report showed that this covers only about 1/3 of the variance with regard to predicting the outcome for individual children. Rowan (a.a.) has, within the framework of his criticism, pointed to this tendency. Even if the quantitative research develops so that larger parts of the variancy can be explained, in all probability the qualitative follow-ups will provide further valuable illustrations of the causes of achievement and adjustment patterns which individual pupils have.

Practical- political importance

The research area can also be apportioned importance in practical politics. It is apparent e.g. in the Swedish Government Bill for 1985/86 in which the Ministry of Education emphasizes the importance of research results which show "..... that schools are characterized by different pedagogical and social climates and that such differences are of great importance for pupils' achievements and social development." (Prop 1984/85:100, Appendix 10, page 11). Emphasis is placed

on pupils who have difficulties at school and that it is "a matter of urgency that research and development work in connection with these questions is intensified and that this aspect is given high priority in further education." (op.cit. page 11).

Purpose

It is my intention, from the starting point of earlier research in the area, to develop methods to describe the pedagogical and social climates in Swedish schools as well as to study the connections between climate and pupil outcome with regard to both achievements and social adjustment inside and outside the school.

The main aim is to test and to develop further the theoretical perspectives and frames of reference which have been presented above and at the same time to specially take into account the importance of the pedagogical and social climate for children from so-called non study motivating social home environments.

In this matter it is only to a very limited degree possible to fall back directly on previous Swedish studies. To initiate research about Swedish schools' pedagogical and social climates within the frame of reference presented here entails setting foot on virgin ground.

Notes

1. Research project "The school and the teachers" (SOL) at the Department of Education, Teachers' training college in Stockholm.

2. Many of the theoretical questions touched upon in this section are dealt with in more detail in an anthology (Grosin, 1985a) which will be published by Esselte in the spring, 1985. The references are from a summarizing last chapter in the anthology (Grosin 1985b).

3. Adjusted study programmes are programmes of measures for individual pupils which means that changes can be made in the daily timetable or that they can be exempted from a subject element or a whole subject or that these can be added. As well as this all the teaching or a part of it can be placedoutside the school, e.g. atsome factory, office etc. Adjusted study programmes can be applied when a pupil, in spite of what the school does, often plays truant, has large adjustment difficulties or is fed up with school.

4. A more probable consequence of more effective schools and teaching is that the pupils' average level of knowledge is greatly increased and that the differences between pupils is reduced. This has happened in experiments with so called Mastery Learning (which means that one consequently sees that pupils are well grounded in a subject when they come to new element in the teaching) and by systematically using knowledge about what can improve the pupils' results. See Bloom, B., Human Characteristics and School Learning, New York: Mc Graw Hill, 1976 and Bloom, N., The Search for Methods of Group Instruction as Effective as One-to-One Tutoring, Educational Leadership, May 1984, pages 4 - 17.

It should be pointed out however that a condition for making and registering such improvements is a knowledge related grading system. (see further page 20).

5. For a discussion of the genetic factors' importance and the relationship between genetic, social and pedagogical factors, see Ekerwald (1983) and Grosin (1985b).

6. The theory of "the social inheritance" was coined by Gustav Jonsson and was based on his work, Delinquent Boys, Their Parents and Grandparents, Munksgaard, Copenhagen 1967. It has played a very important

role both in discussions and in practice within applied psychology about education in Sweden during the 1970s.

7. In quantative research school problemes and truancy have proved to be among few social factors which has an association with later social maladjustment and also with abuse of alcohol. See for example Weiland, G.E. and Milotsky E.S., The etiology of alcoholism: A prospective viewpoint. American Psychologist,1982, 37, 494-503.

8. According to the norm on which grading in Swedish Gymnasium Schools is based in every subject 7% of the country's school population should have grade 1 and another 24% are expected to be worth grade 2, i.e. in practice a failure grade. This means, amongst other things that a grade average of 2 leads to a pupil being more or less without a chance both in regard to further education and in the labour market.

Even in the Secondary School the percent distribution was previously the rule: 7, 24, 38, 24 and 7 for the five grade scale. The new curriculum does not any more present any established percentages but states that "grade 3 should be the average for the whole country and that the number of 2s and 4s in a class normally should not be larger than the number of ones or fives. (LGR80, page 39). Concerning the questions discussed here the new rules do not make any appreciable difference to the situation.

Translated from the Swedish by Kay Olofsson, March 1985.

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